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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/552,657	04/19/2000	Tomohiro Nakajima	0557-4969-2	2974

22850 7590 02/26/2003

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EXAMINER

PHAN, JAMES

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/552,657	NAKAJIMA, TOMOHIRO	
Examiner	Art Unit		
James Phan	2872		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 11 December 2002.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) 5-8 and 18-31 is/are withdrawn from consideration.

5)  Claim(s) 2 and 3 is/are allowed.

6)  Claim(s) 1,4 and 9-17 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1)  Notice of References Cited (PTO-892) 4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948) 5)  Notice of Informal Patent Application (PTO-152)  
3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

Claims 12, 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is confusing and thus indefinite because in lines 10-11 the claim defines that the light beams cross each other at a position **close to** the deflection unit, and then in the last line it defines that the light beams cross each other **on** a deflection surface of the deflection unit.

Claim 14 is confusing and thus indefinite because in line 8 the claim defines that the aperture is **situated between** the light source and the deflection unit, and then in line 14 it defines that the aperture is **incorporated into** the deflection surfaces of the deflection unit.

Claim 15 is confusing and thus indefinite because in line 8 the claim defines that the aperture is **situated between** the light source and the deflection unit, and then in line 12 it defines that the aperture is **incorporated into** the deflection surfaces of the deflection unit.

Claims 16 and 17 are rejected in that they are dependent on the indefinite claims and thus inherit the deficiencies above.

### ***Arguments***

Applicant's arguments with respect to claims 1, 4, 9-11, and 13 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 4, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al '345 in view of Takada.

Nakajima et al '345 discloses a multibeam scanning apparatus which comprises a light source unit (LD1,LD2) and coupling lenses (104,105) for emitting light beams on slanting optical axes, the emitted light beams cross each other in the vicinity of a polygon mirror reflective surface of a deflection unit; the deflection unit (polygon mirror 403) for deflecting the light beams, an optical unit (scan lens 404) for imaging the deflected light beams on a scanned surface (Figs. 2B-2C,6). Nakajima et al '345 does not disclose a light beam restricting unit between the light source and the polygon mirror for shaping the light beams emitted from the laser diodes. However, the use of a light beam restricting unit between the light source and the polygon mirror for shaping the light beams emitted from the laser diodes is well known in the art. Takada discloses a multibeam scanning apparatus which comprises a light source unit (501) for emitting light beams which cross each other; a deflection unit (polygon mirror 504) for deflecting the light beams, an optical unit (scan lens 506) for imaging the deflected light beams on a scanned surface (507), and a light beam restricting unit (aperture 503) disposed between the light source and the polygon mirror for shaping the light beams emitted from the laser diodes (Fig. 42). Thus, it would have been obvious to one skilled in the

art at the time the invention was made to apply the teaching of Takada in Nakajima et al '345 for the purpose stated in Takada.

***Allowable Subject Matter***

Claims 2-3 are allowed.

Until at such time claims 14-17 are definite, an indication of allowability of the claims is deferred.

The following is a statement of reasons for the indication of allowable subject matter: none of the cited references teaches or fairly suggests the claimed invention having the structure defined in claim 2; particularly, the feature specified in lines 12-15. Claim 3 is dependent claim and thus allowable at least for the same reason.

***Conclusion***

The indicated allowability of claims 12 and 14-17 in the office action mailed 8/14/02 has been withdrawn at least for the reason stated on page 2.

The related application SN 10/242,710 listed in the IDS filed 12/11/02 has been checked.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (703)308-4810. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703)308-1867. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

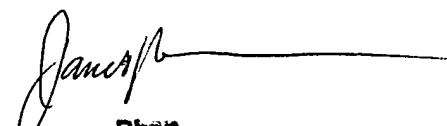
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308-7722 for regular communications and (703)308-7724 for After Final  
communications.

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the receptionist whose telephone number is (703)308-  
0956.

Phan, J.  
February 24, 2003



James Phan  
Primary Examiner